Tempe

# Memorandum

## Environmental Health and Safety

TO: Glenda Nichols, Plant Team Lead

FROM: Raymond Hagen, Hazmat/Safety Specialist
Richard Dalton, WUD Safety/Training Coordinator

CC: Oliver Ncube, WUD Deputy Manager
Bob Rukavina, Plant Operations Administrator
Mike Bershad, Plant Operations Administrator
David Tavares, Hazardous Materials Supervisor
Scott Mosley, Hearing Conservation Program Administrator

DATE: **June 29, 2006**

**SUBJECT: HEARING CONSERVATION – EMPLOYEE NOTIFICATION**

This memo and attached documentation is to notify you that noise monitoring was performed in accordance with 29 CFR 1910.95(e) and the OSHA Technician Manual (OTM) Section III, Chapter 5, evaluation of noise exposures. On June 29, 2006 a walk around survey was completed by the Environmental, Health and Safety Group (EHS) to measure the duration and intensity of occupational noise that employees at the Kyrene Water Reclamation Facility are exposed to on a daily basis.

Attached is the Noise Monitoring Survey results and employee notification letter. **All** these documents must be posted for ten **(10)** working days in a prominent area, where **all** employees who work at the Kyrene Water Reclamation Facility have access. Based on the results of noise monitoring, your employees are covered by the City of Tempe, Hearing Conservation Program.

Therefore, employees assigned to this facility will be required to receive annual audiometric testing and training. Additionally, they will be required to wear hearing protection.

If you have any questions about the monitoring, hearing protective equipment, placement of sign(s), or wish to have additional monitoring performed, please contact Program Administrator, Scott Mosley at 350-8877.

# POST FOR TEN WORKING DAYS

# City of Tempe
# Hearing Conservation
# Notification

This letter serves to notify you that noise monitoring was performed to measure the duration and intensity of occupational noise in your work environment (See Attached Noise Monitoring Survey). The results were compared to allowable exposure standards called PELs (Permissible Exposure Limits) established by OSHA. This PEL is calculated on a Time Weighted Average (TWA) over a normal 8-hour work shift. The results indicated that you exceed the PEL/TWA. Therefore, employees assigned to the Kyrene Water Reclamation Facility who work in or around areas or equipment identified in the Noise Monitoring Survey are covered by the City of Tempe, Hearing Conservation Program.

Therefore, you will be required to receive annual audiometric hearing tests and training. Additionally, you are required to wear hearing protection. The use of hearing protective equipment provides an additional protective barrier between you and potentially high noise levels.

If you have any questions about the monitoring or wish to have additional monitoring performed, please contact 350-8877 or 350-2818.

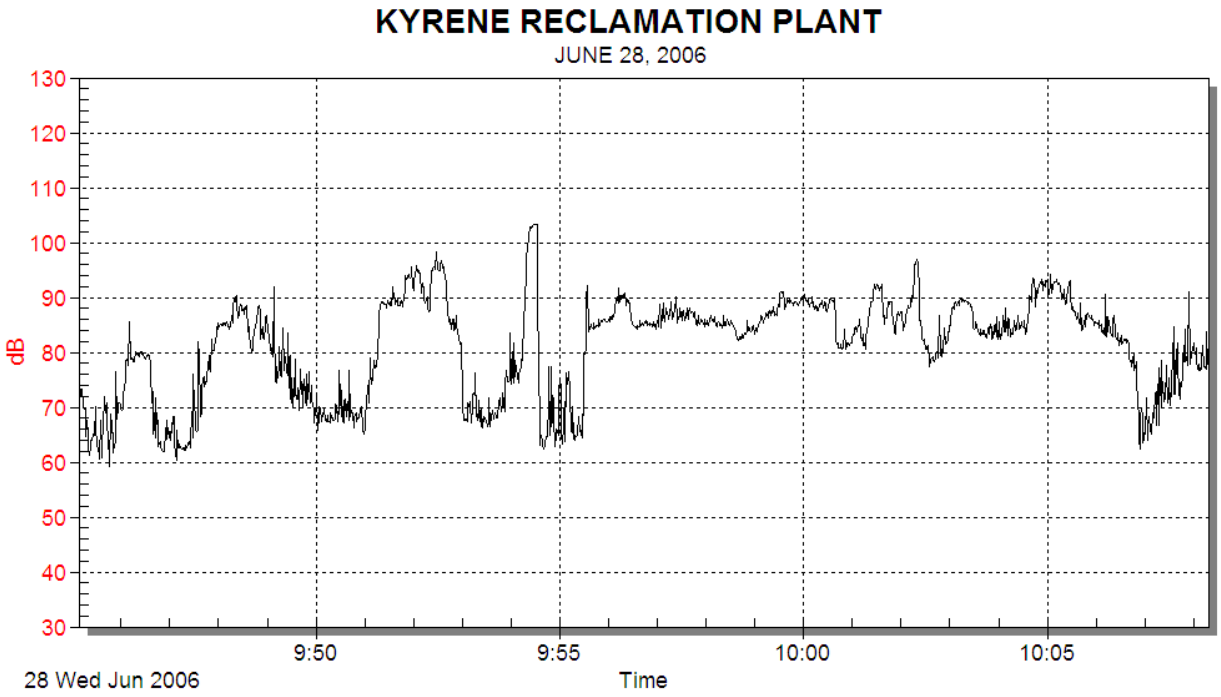
**POST FOR TEN WORKING DAYS**

**Monitoring Synopsis**

The sound meter used to perform monitoring was a Type 2 meter with data logging capabilities with a frequency range of 31.5Hz ~ 8KHz. The measuring level range is 30 ~ 130dB in the "A" frequency rating. Accuracy is approximately +/- 1.5 dB. The meter was calibrated per manufactures recommendations using a standard Acoustic Calibrator (94 dB) at the start and end of monitoring and was found to be within the acceptable ranges.

The Kyrene graph below depicts a walk around survey performed to screen for high noise exposures and to determine if additional monitoring is necessary. When screening for noise exposures, sound level meter measurements and estimates of the duration of exposure are sufficient. The resulting spot readings can be used to determine the need for a more complete evaluation. Based on this monitoring event, no additional monitoring is required.

The monitoring event includes all areas where Plant personnel make "rounds" and service equipment. The configuration (enclosed) of many of the areas creates an increased hazard from noise induced hearing loss should equipment fail or wear with age. Calculation of the Time Weighted Average (TWA) is difficult to determine based on numerous and varied different tasks performed by plant personnel. The highest dBA recorded was during an automatic air release event that occurred outside. The plant has numerous valves that operate in the same fashion.




**POST FOR TEN WORKING DAYS**

**Findings**

The following areas were monitored with the peak dBA indicated.

| Area/Equipment | Peak dBA | Area/Equipment | Peak dBA |
|---|---|---|---|
| Screen Room | 80 | Scrubber Area (Outside) | 91 |
| Compressor Room | 95 | Air Relief (H2O Tank) | 104 |
| Basement West Door | 79 | Bottom of Stairs (RAS) | 92 |
| Electric Room | 90 | Gallery (Outside Elec.) | 92 |
| Blower Room | 98 | North Gallery (Inside sound absorption) | 97 |

As addressed earlier the configuration of the facility is mostly enclosed areas. Individuals performing routine tasks would be subjected to noise levels of varying ranges and types. In addition, other activities involving maintenance or repair work was not monitored. However, these activities would tend to add to the peak readings.

Based on discussions with plant personnel other Water Utilities Department personnel from the Environmental Services Division enter the basement area to perform compliance wastewater sampling. A peak of 92 dBA was recorded in the area where wastewater monitoring equipment is located.

**POST FOR TEN WORKING DAYS**

**Determination**

Based on the results of monitoring and discussions with plant personnel there is sufficient information to include Kyrene Plant personnel in the City of Tempe, Hearing Conservation Program. Hearing protection is required in the basement and all areas monitored.

**Requirements**

Signage notifying individuals of the potential for high noise must be posted at all entry points into the areas identified in this report. Additionally, it is the responsibility of Plant Team Lead to properly notify outside employees or contractors that enter high noise areas of the hazards and required personal protective devices required. The appropriate level of hearing protective device is:

- Any Hearing Protective Device with a minimum NRR value of 29.

Additionally, if alarms or other communications equipment is required when performing routine duties they must comply with the requirements above. It is highly suggested that if alarms are used in the basement area, visual indicators be used in conjunction with audible alarms.

# POST FOR TEN WORKING DAYS